

Technology Transfer for Better Air Quality in Asia

Clean Air Asia's programs for accelerating air quality and climate action in the region

Bjarne Pedersen

Executive Director



Clean Air Asia: leading the regional mission for improved air quality in Asian cities



OUR VISION, MISSION AND GOALS

Clean Air Asia's vision for the decade is a world with clean air, blue skies and a stabilized climate for people and the planet.

Our mission is to reduce air pollution and greenhouse gas emissions in Asia and contribute to the development of a more sustainable, equitable and healthier region. We empower governments and cities by inspiring action and focusing efforts on planning and implementation of solutions at scale, fostering regional cooperation to address issues of mutual concern, and ensuring the integration of air quality management across sectors and institutions.



Beijing, China

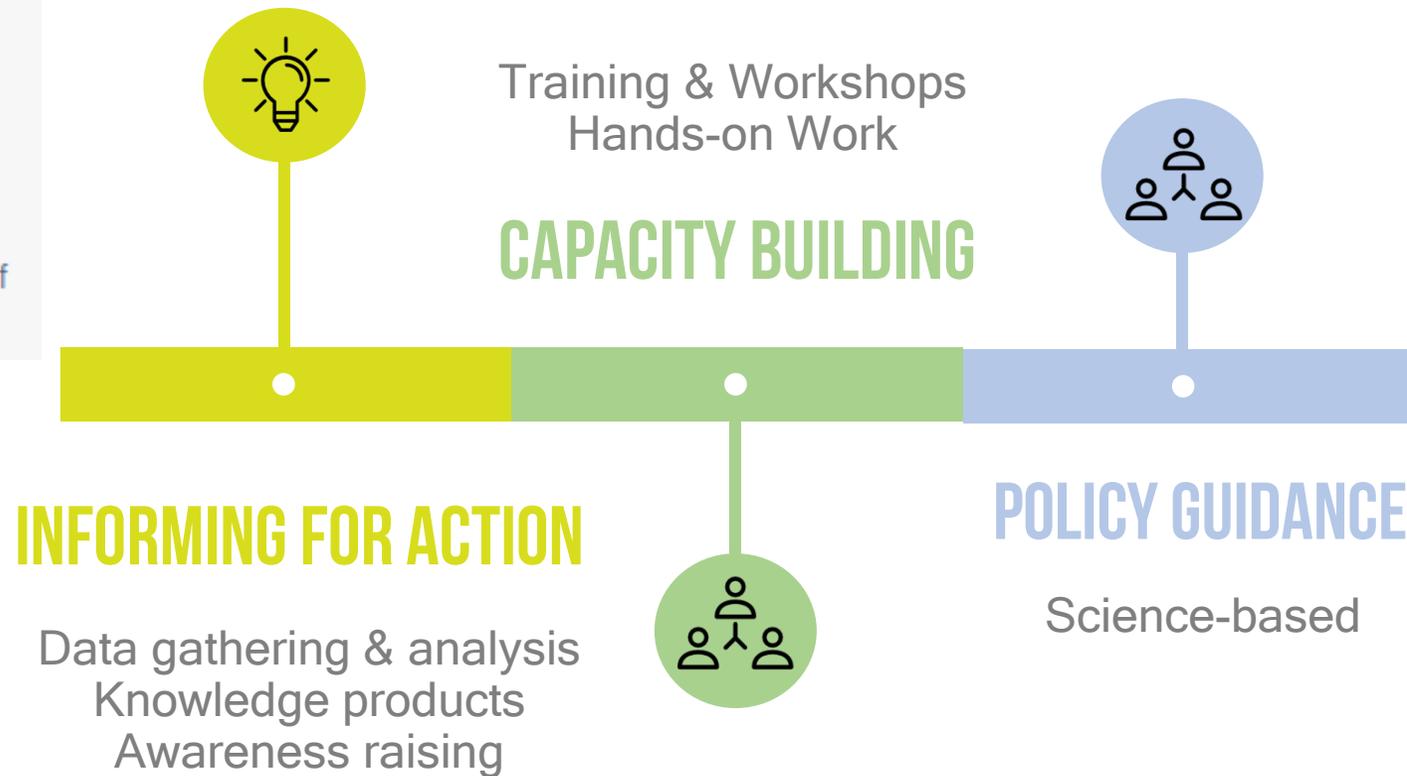


Manila, Philippines



New Delhi, India

Country Networks: Indonesia, Malaysia, Nepal, Sri Lanka and Vietnam



www.cleanairasia.org

Integrated Programme for Better Air Quality in Asia: Overview



Objective: To improve air quality and contribute to more livable and healthy cities in Asia

Focus: Cities with high impact potential and potential for leveraging wider change

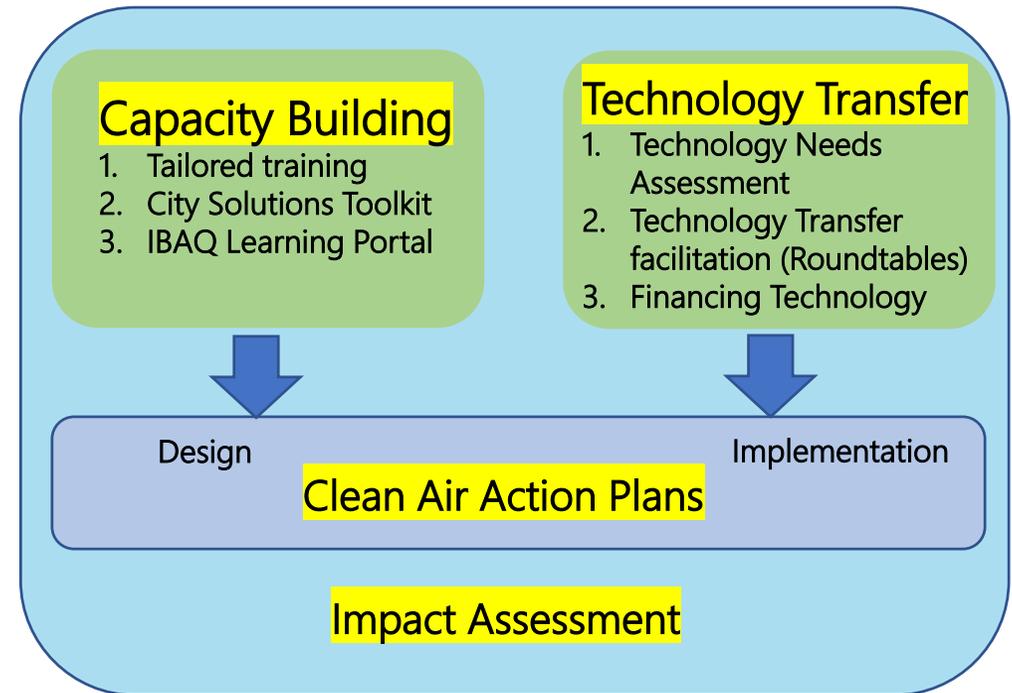
Clean Air Asia with implementing partners IGES and ACAP

Supported by the Ministry of Environment of Japan

Phase 1: 2014 to 2019

Phase 2: 2019 to present

IBAQ Core Components



Capacity building resources



- **Tools and toolkits, knowledge products and databases**

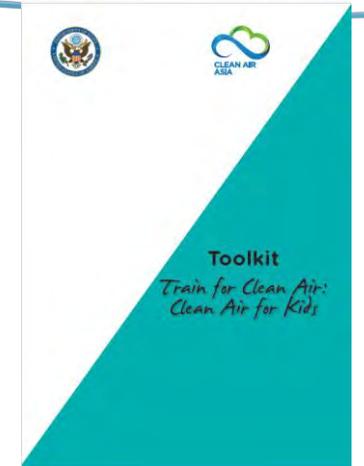
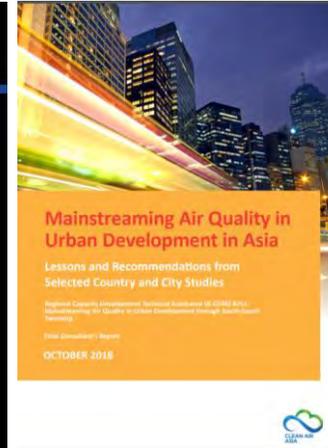
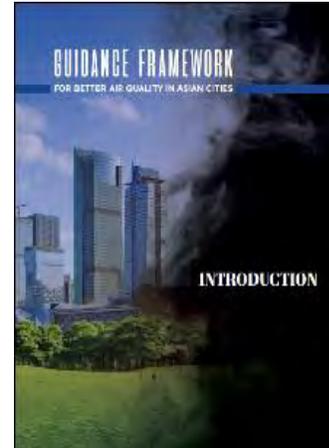
- IBAQ City Solutions Toolkit
- Clean Air Scorecard Tool
- TEEMP
- Transport Database
- Train for Clean Air for Kids

- **Training materials**

- Guidance Framework
- Train-4-Clean-Air
- Needs-based training topics

- **Platforms and events**

- IBAQ Learning Portal
- Clean Air Knowledge Network
- Youth for Clean Air
- Better Air Quality Conference



IBAQ Program Learning Portal

Building Capacity for Air Quality Management

Courses

We offer a wide range of training courses on different topics in air quality management tailored to meet the demand for and preferred mode and pace of learning.

City Solutions Toolkit

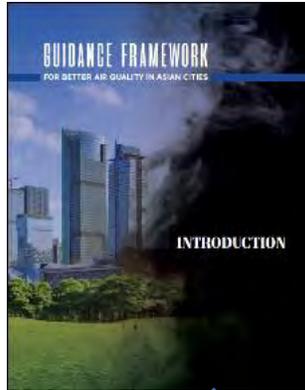
Provides step-by-step guidance for cities on key areas of air quality management.

Learning Resources

A compilation of online tools used for air quality management.

What we have done so far in the region

Overall Clean Air Score		
City	Overall Score	Description
Nashik, Maharashtra, India	Emerging	Majority of key components of clean air management are in place. Policies and actions to reduce emissions from identified major sources need to be enhanced. Sector-based institutions need to upgrade technical and management capacity.
Aurangabad, Maharashtra, India	Emerging	Majority of key components of clean air management are in place. Policies and actions to reduce emissions from identified major sources need to be enhanced. Sector-based institutions need to upgrade technical and management capacity.
Nagpur, Maharashtra, India	Emerging	Majority of key components of clean air management are in place. Policies and actions to reduce emissions from identified major sources need to be enhanced. Sector-based institutions need to upgrade technical and management capacity.



Supporting the implementation of actions and adoption of solutions (policy and technology)

Assessment

Roadmapping for AQM

Help cities and governments set air quality targets

Data generation (AQ monitoring, emission inventories, health mapping)

Clean air action planning



Clean Air Asia (2019), Marikina CAAP Development



Operationalizing clean air strategies and measures through technology



- National, city, entity-level support to address sectoral emissions through development and implementation of Clean Air Action Plans
 - Industries, transport, household, commercial, etc.
- National, city, entity-level support to build the evidence-base to inform action
 - SMART systems, big data processing, etc.
- Capacity building on the use and uptake of best available control technologies



Clean Air Asia's Engagement with the Private Sector



'The Triangle of Change':
Private sector, Government, NGOs

CAA work with the private sector via:

- Long-term cooperation agreement
- Membership of Clean Air Asia
- Specific project involvement
- The Better Air Quality Conference (BAQ)



03.07.2018 STRATEGY, SUSTAINABLE MOBILITY

Faurecia and clean air Aisia partner to accelerate the implementation of clean air solutions in Asia

With air quality increasingly becoming a major concern for cities, there is a growing need for powertrain electrification and new clean technologies.

Mitsubishi PH donates i-MIEV to DENR for Clean Air Asia program

Let's hope for more eco-friendly cars circling around different cities in the future.



From left to right: Clean Air Asia Program Director Mr. Alan Silayan, MMPC Vice President for Corporate Public Relations Mr. Renato S. Lampano, Marikina City Councilor Hon. Serafin Y. Bernardino, City Environmental Officer Ms. Gloria Buenaventura, First Gen Corp VP for Business Development Mr. Aloysius Santos, DEIR Central Office Engr. Jaime Jacobo and DEIR Air Quality Management Engr. Jundy Del Socorro.



Community learning session in Marikina and Paranaque City supported by UPS

Clean Air Asia's Engagement with the Private Sector



Our role in relation to the private sector are different to many NGOs:

- CAA as an honest and trusted broker between cities/governments looking for solutions/technologies and the private sector providing these – we work with 50+ cities on CAAPs
- As a 'neutral' convener of the private sector and the leaders of the AQ community (often at BAQ, 1000 plus participants from 50+ countries)
- Driving policy change (for example in emissions standards) leading to demand for implementation of new technologies
- Direct cooperation – for example deploying monitors or e-vehicles as part of CAAP's or other initiatives
- Mutual beneficial cooperation including 'opening doors' – 3M, MAHA and Toyota

Some of Clean Air Asia's Key Programs – Private Sector involvement

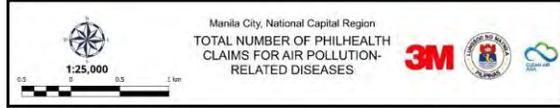
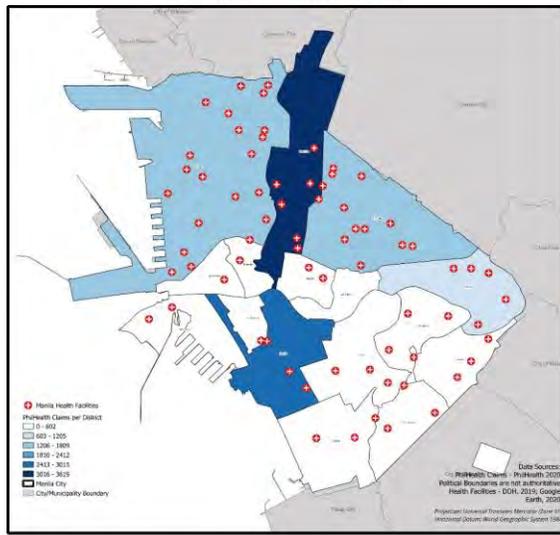
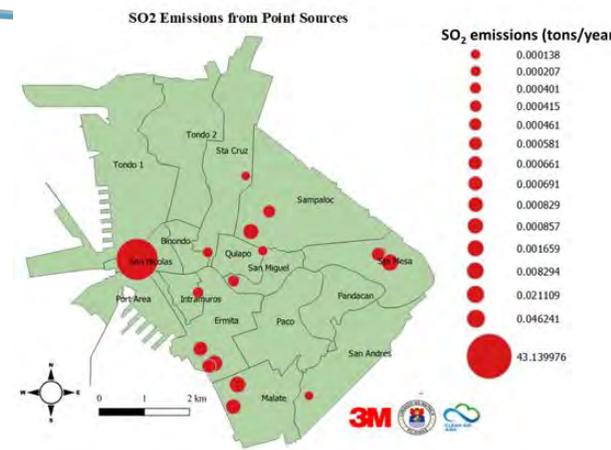
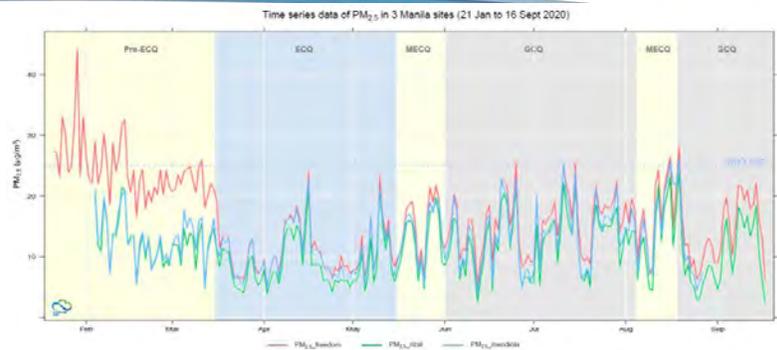


- **Asia Blue Skies Program** – Five-year partnership with 3M Global to support clean air action planning and implementation of measures in Manila, Philippines and New Delhi, India
- **Strengthening Knowledge and Actions for Air Quality Improvement** – Partnership with Asian Development Bank for developing clean air action plans for cities in Bangladesh, Mongolia, Pakistan, Philippines, and Viet Nam (two cities each country)
- **UPS CitieSWITCH for e-mobility** – A three-year program to develop Clean Air Action plans focusing on delivering e-mobility solutions
- **C40 Technical Assistance Program** – Setting up air quality monitoring network and air quality management plan development for Quezon City, Philippines
- **SolutionsPLUS** – Provides a global platform for shared, public and commercial e-mobility solutions to kick start the transition towards low-carbon urban mobility of high-impact cities.
- **Eco-driving** – Five year partnership with Toyota to institutionalize eco-driving in Jarkarta, Indonesia

The Asia Blue Skies Program



- Air quality monitoring
- Emission inventory
- Health mapping
- Implementing solutions and programs
- Fostering partnerships



SOLUTIONS BASED ON SCIENCE, AND INSTITUTIONALIZED THROUGH CLEAN AIR ACTION PLANS

BAQ key private sector partners (2018)



Sponsors:
sarawak energy TOYOTA
Platinum and Lanyard Sponsors

camfil HORIBA APAQ GROUP MAHA UBER FIA FOUNDATION PETRONAS
Gold Sponsors

M TA ANN
General Sponsor Tea Break Sponsor Solutions Exhibitor

Exhibitors:

CAHYA MATA SARAWAK URBAN emissions.info VAISALA TRANSWATER APM IQAir® EMT ENVIROMET™
GRIMM AEROSOL TECHNIK AS ALS enviroterm

Future direction for involving private sector in IBAQ

– some ideas



Facilitating cooperation for scaled AQM actions

- Matching/bridging: Knowledge and experience exchange among private sector, countries and cities, including technology fairs and dialogues such as seminar(s)/workshops to share key technologies for specific subjects/areas, with best practice cases.
- Design and implement dedicated sessions at BAQ or relevant events to share/disseminate/discuss the technologies and relevant policies (in collaboration with some private sector association(s))

Capacity development for AQM

- Technology supporting national and city-level climate and clean air action planning and implementation
- Strengthening AQM through CAAP development and implementation measures and programs (policies, technologies)
 - Sector-specific solutions (e.g., strengthening policy frameworks and implement technology-based solutions)
 - Develop additional chapters/information on technologies for knowledge products such as ToolKits, Handbooks etc. to be used for capacity building and technical assistance.

Accelerating technology adoption to harness co-benefits of AQ and CC mitigation

- Development and implementation of co-financed technology transfer programs for Climate/AQM in the region

Thank you!

